

WE  
I claim:

1      Claim 1 - A connector for segments comprising:  
2                a male portion having coupling elements to attach strength  
3                members of one segment thereto and an axial bore to secure and  
4                position one end of <sup>a</sup>  
                        ^  
5                segment;  
6                a female portion having coupling elements to attach  
7                strength members of another segment thereto and an axial bore  
8                to secure and position one end of another detonating cord  
9                extending from said other segment; and  
10               a spring clip, extending through said female portion to  
11               engage part of said male portion, said part of said male  
12               portion being sized to be inserted in said female portion and  
13               engaged by said spring clip to place said ends of said  
14               detonating cords adjacent one another to assure transfer of  
15               detonation between them.

1      Claim 2 - An apparatus according to claim 1 in which said male  
2               and female portions adjacently position said ends of said  
3               detonating cords to transfer detonation between said detonating  
4               cords and said detonation cords have detonation boosters  
5               attached thereto.

1      Claim 3 - An apparatus according to claim 2 in which said  
2      coupling elements are an annular rim radially extending from  
3      said female portion and clamps engaging lengths of said  
a 4      strength *members* between said clamps and said annular rim.

1      Claim 4 - An apparatus according to claim 3 in which said  
2      female portion has a second bore sized to receive said part of  
3      said male portion therein and said spring clip has leg portions  
4      extending into said second bore of said female portion.

1      Claim 5 - An apparatus according to claim 4 in which said part  
2      of said male portion has a tapered section to ease insertion in  
3      said second bore and spread said leg portions apart and said  
4      part of said male portion is provided with an annular groove  
5      sized to receive said spring clip to interlock said male and  
6      female portions together.

a 1      Claim 6 - An apparatus according to claim 5 in which said  
2      female portion has its *outer* surface knurled to help engage  
3      said strength members and said male and female portions are  
4      anodized to ease mutual interconnection and resist corrosion.

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1      Claim 7 - An apparatus according to claim 6 in which said male  
2      and female portions each have enlarged bores next to said axial  
3      bores to pass lengths of said detonating cords to said axial  
4      bores and to reduce weight.

1      Claim 8 - An apparatus according to claim 7 in which said male  
2      and female portions are cylindrically-shaped and are fabricated  
3      to reduce drag during deployment.

1      Claim 9 - An apparatus according to claim 8 in which said male  
2      and female portions are fabricated from at least one of the  
3      group of lightweight and strong materials consisting of  
4      aluminum, nylon, and synthetic plastics.

1      Claim 10 - An apparatus according to claim 9 in which said  
2      segments are a plurality of explosive segments coupled together  
3      by a plurality of said connectors which each secure adjacent  
4      explosive segments together in an elongate line charge.

1      Claim 11 - An apparatus according to claim 10 in which said  
2      ends of said detonating cords are connected to detonation  
3      boosters to enhance reliability.